Note: Posters that are also presented as poster platforms (PP) are listed in the technical session program for Tuesday and Thursday afternoon, as well as below (in green).

#### Theme I.

### Toward a sustainable environment: managing resources through integrated actions

Transboundary transport of pollutants, cumulative risks, cleanup and restoration

### I-PP1 Sustainable chemistry in Germany

Werner Hauthal, University of Leipzig, Germany; Wilhelm-Ostwald, Institute for Physical and Theoretical Chemistry, Germany; Dieter Lenoir, GSF Forschungszentrum, Germany

### I-PP2 Approaches for predicting health risks associated with complex chemical mixtures Peter Robinson, ManTech Environmental Technology, OH

Teter Robinson, manteen Environmental Teennotogy, Off

# I-PP3 Preliminary inventory of sources of persistent organic pollutants in St. Petersburg Veniamin Khudoley, Georgii Livanov, Russian Academy of Science, Russia; Marina Alexandrova, Institute of Toxicology, Russia

# I-PP4 Exposure to dose research focus of PNNL's new environmental health initiative Robert Stenner, K. Soldat, C. Timchalk, K. Thrall, J. McDonald, D. Strom, Pacific Northwest National Laboratory, WA

## I-PP5 <u>Using multiple data sources, including multi-seasonal satellite images, to develop habitat maps for ecological risk assessment at a nuclear facility</u>

John Pinder, Colorado State University, CO; Kristy Guy, USGS, FL; Tracy Rea, Bechtel Savannah River, Inc., SC; Deno Karapatakis, Savannah River Ecology Laboratory, GA; Helen Wiggins-Brown, University of Georgia, GA

### I-PP6 Native plant restoration for urban developments Mike Girvin, Designs on Nature, IN

Mike Girvin, Designs on Nature, IN

### I-PP7 Environmental technology development, deployment and commercialization: two DOE examples Jeremy Boak, Los Alamos National Laboratory, NM

- I-P1 Risk assessment methods used in support of US programs for chemical weapons stockpile destruction Heidi Hartmann, Argonne National Laboratory, IL
- I-P2 Science and technology challenges for the environmental cleanup of the Cold War legacy
  Curtis Travis, Quest Technology, TN; Alvin Young, Miles Dionisio, DOE Center for Risk Excellence, IL
- I-P3 <u>Alternative waste management systems</u>
  Zachary Jones, Stephanie N. Simmons, Carnegie Science Center, PA
- I-P4 Removal of contaminants by using fuel cell cathode/ion exchange membrane
  Riza Kizilel, J.R. Selman, Illinois Institute of Technology, IL; G. Sandi, Argonne National Laboratory, IL
- I-P5 Applying hydrologic tools to understand environmental data for dose and risk assessments at the Hanford site Doug Hildebrand, US Department of Energy Richland Office, WA
- I-P6 Evaluating health risks associated with flood events after a major wildfire
  Randall Ryti, Danny Katzman, Steven Reneau, Los Alamos National Laboratory, NM
- I-P7 <u>Conceptual models for integrated cumulative risk assessment</u> Ryan Ramos, Roxanne Myshkowec, Margaret Shanafield, Zach Schreiber, Margaret MacDonell, Argonne National Laboratory, IL
- I-P8 <u>Screening approaches for community-based cumulative risk assessments</u> *Jim Butler, Margaret MacDonell, YoungSoo Chang, Argonne National Laboratory, IL*
- I-P9 <u>Humic products for environmental protection and rehabilitation of polluted territories</u>

  Alexander Abramets, Institute for Problems of Natural Resources Use and Ecology, Belarus
- Interaction of phenolic uncouplers in mixtures in an in vitro assay, and in in vivo experiments with Vibrio fischeri and Daphnia magna
   Zachariah Schreiber, B. Escher, R. Hunziker, O. Kuehnholz, K. R. Schwarzenbach, ETHZ, Switzerland; Becker van Slooten, EPFL, Switzerland
- I-P11 Risk, information, and long-term stewardship decision processes

  Elizabeth Hocking, Robert Johnson, S.Y. Chen, Jack Ditmars, Argonne National Laboratory, IL
- I-P12 Ecological problems of St. Petersburg and Leningrad District underground water resources employment A. Frolov, T. Fazyeva, Department of Natural Resources of Russian North-West Region, Russia
- I-P13 The demise of urban wetlands resulting from landfill and quarry operations: an Indiana case study Solomon Isiorho, Indiana University-Purdue University, IN

I-P14 Risk assessment for contaminated land and temporary radioactive waste storage sites in the Chernobyl exclusion zone

Borys Zlobenko, State Scientific Center of Environmental Radiogeochemistry of the Academy of Sciences and the Ministry of Emergencies, Ukraine

- I-P15 The transdisciplinarity solution of the problems of radioactive waste in Chernobyl exclusion zone
  Ivan Sarwar, Cherkassy Institute of Engineering & Technology, Ukraine
- I-P16 Degradation of peat soils of Belarus: reasons and consequences

  Elena Roydan, Institute for Problems of Natural Resources Use and Ecology, Belarus
- I-P17 The safety assessment during the long-term storage of spent fuel of alfa class submarines

  Dmitry Pankratov, Boris Gromov, Evgueni Efimov, Sviatoslav Ignatiev, Ludmila Riabya, Institute of Physics
  and Power Engineering, Russia; Victor Kalchenko, Vladimir Stepanov, Research and Development Bureau
  "Gidropress," Russia
- I-P18 <u>Treatment of ADS spent liquid metal targets as a waste form</u>
  Sviatoslav Ignatiev, Evgueni Efimov, Victor Levanov, and Dmitry Pankratov, Institute of Physics and Power Engineering (IPPE), Russia

### Theme II.

Public policy and due process: involving stakeholders in developing solutions

Partnerships and communication, economics, redevelopment, and insights from climate change

- II-P1 The health risk among select occupational health care employee groups in an urban hospital M. Rajasekhar, N.V. Nandakumar, Sri Venkateswara University, India
- II-P2 Socio-environmental risk factors associated with diarrhea in the biggest pilgrim town, Tirupati M. Rajasekhar, N.V. Nandakumar, Sri Venkateswara University, India
- II-P3 <u>The ASME Environmental Communications Committee</u>

  Martin Edelson, Ames Laboratory/Iowa State University, IA
- II-P4 Sharing restoration projects with children Michael Girvin, Designs on Nature, IN
- II-P5 Thermal tolerance of rainforest plants in Biosphere 2

  Kristi Argenbright, Jamie Ballantyne, Ami Patel, John Adams, Texas Christian University, TX
- II-P6 <u>Climate modeling at the regional scale</u> John Taylor, Jay Larson, Sheri Voelz, Argonne National Laboratory, IL
- II-P7 To the forecasting of global warming influence on ancient lakes ecosystems

  Maxim Timofeyev, Irkutsk State University, Russia
- II-P8 Global climate change and water resources in Southeast Asia
  Ivan Sarwar, Cherkassy Institute of Engineering & Technology, Ukraine

### Theme III.

Environmental information in the 21st century: approaches & tools for better decisions

Data collection and analysis, GIS / visualization tools, information technology and Internet applications

III-PP1 Local environmental health analysis as a tool for policy-making, exemplified by "Transport, Environment and Health" in the City of Bielefeld

Rainer Fehr, W. Hellmeier, Institute of Public Health, Germany; A. Vogt, D. Philippsen, A. Queste, University of Bielefeld, Germany; M. Enderle, City of Bielefeld, Germany

III-PP2 An OO-IDLAMS case study to test a dynamic object-oriented architecture approach to modeling and simulation

Pamela Sydelko, Argonne National Laboratory, IL; Kimberly Majerus, Illinois Department of Transportation, IL; Jayne E. Dolph, Thomas N. Taxon, Argonne National Laboratory, IL

- III-PP3 <u>EQPT: A GIS-based tool for assessing environmental quality</u>
  Michael R. Sackschewsky, Spyridon Tzemos, Gordon R. Bilyard, Pacific Northwest National Laboratory,
  WA
- III-PP4 The Environmental Data Catalogue of Hamburg
  Mathias Bock, Umweltbehorde Hamburg, Germany
- III-P1 <u>Derivation of quantitative environmental health targets from surveillance information</u> Rainer Fehr, W. Hellmeier, loegd NRW, Germany; A. Queste, U. Wolf, University of Bielefeld, Germany
- III-P2 Standards for human exposure assessment for environmental chemicals using probabilistic modeling a contribution to good practice in risk assessment
  Odile Mekel, University of Bielefeld, Germany; Rainer Fehr, Institute of Public Health (loegd) North, Germany; O. Mosbach-Schulz, University of Bremen, Germany; M. Schümann, University of Hamburg, Germany
- III-P3 <u>Integration of GIS with a radiological transportation accident consequence health risk model</u> James Kuiper, Bruce Biwer, Dave LePoire, S. Y. Chen, Argonne National Laboratory, IL
- III-P4 Special population planner: A GIS-based emergency planning system

  James Kuiper, William Metz, Daniel Miller, Argonne National Laboratory, IL
- III-P5 Pathways to shared environmental models, data, and visualization

  David LePoire, John Arnish, Bruce Biwer, Argonne National Laboratory, IL
- III-P6 <u>GIS mapping of a rural-urban sub-watershed using Landsat TM and population statistics</u>
  Ken Morgan, Paul Way, Arthur Busbey, Ray Drenner, Michael Slattery, Texas Christian University, TX
- III-P7 <u>Mammal survey for the Mason Audubon Center, Tucson, Arizona, USA</u>

  Derrick Dollar, Texas Christian University, TX; Scott Richardson, Arizona Game & Fish, AZ; Erin Deely, Audubon Society, AZ
- III-P8 Wetlands and urbanization: a case study of the Lodes Marsh, Fort Worth Nature Center and Refuge, Fort Worth, Texas, USA, Alie Patrick Koroma, Leo Newland, Ken Morgan, Texas Christian University, TX
- III-P9 <u>Using a GIS-based modeling approach to identify potential wetland mitigation sites at Argonne National Laboratory</u>

  Robert Van Lonkhuyzen, Kirk LaGory, James Kuiper, Argonne National Laboratory, IL
- III-P10 <u>Visualizing high-resolution model runs of the "Perfect Storm" using Cave5D</u> Sheri Voelz, John Taylor, Argonne National Laboratory, IL

### Theme IV.

Engineering and biotechnology solutions: applying new technology to energy, food, and health Energy, food safety and health, and transfer of sustainable technology

- IV-PP1 A proposed modular-sized, integrated nuclear and hydrogen-based energy system

  Bruce W. Spencer, Richard Doctor, and David Wade, Argonne National Laboratory, IL; Kenneth

  Peddicord, Texas A&M University, TX; Charles Boardman, General Electric Company, IL; Giuseppe

  Marucci, ENEA, Italy
- IV-P1 Making environment-friendly and stabilizing the hydraulic slag and fly ash deposits from Romanian thermal power plants

  Dumitru Gardan, Institute of Power Studies & Design, Romania
- IV-P2 Policy and technology affecting carbon emissions in the US electric supply sector Ryan Ramos, Northwestern University, IL
- IV-P3 <u>Heterophaseous ozone method of smoke gases denitrification</u> *H. Stolyarenko, I. Astrelin, N. Fomina, V. Demyanenko, Engineering & Technology Institute, Ukraine*

- IV-P4 <u>To the food security policy in Russia</u> Valeria Pislar, Irkutsk State University, Russia
- IV-P5 <u>Impact of pesticides on the environment: perceptions, knowledge and use practices of the rice farmers of Japan and Bangladesh</u>
  Sultana Parveen, Nobukazu Nakagoshi, Hiroshima University, Japan
  - Sutiana Parveen, Nobukazu Nakagosni, Hirosnima University, Japan
- IV-P6 <u>Aerobic degradation of olive mill wastewaters by Candida tropicalis</u>

  Khalid Fadil, A. Chahlaoui, A. Quahbi, A. Zaid, Laboratoire de Biochimie et de Pharmacognoski, Faculty of Sciences of Meknes, Morocco

### **International Risk Assessment Network**

- N-P1 New approaches to the problem of geoecological risk for urbanized territories

  Georgy Lysychenko, I. Zajonts, J. Bondarenko, B. Slipchenko, State Scientific Center of Environmental

  Radiogeochemistry (SSCER) of NAS and the Ministry of Emergencies of Ukraine, Ukraine
- N-P2 <u>Geological-ecological risk in power energetics of the Ukraine for Cold War facilities and the environmental legacy</u>

  Tamara Dudar, Georgy Lysychenko, SSCER of NAS and the Ministry of Emergencies of Ukraine, Ukraine
- N-P3 <u>Ukraine: biosphere radiation safety, Cold War facilities and environmental legacy</u> Georgy Lysychenko, SSCER of NAS and the Ministry of Emergencies of Ukraine, Ukraine
- N-P4 Experience with using the MEPAS system in Ukraine
  Georgy Lysychenko, Tamara Dudar, SSCER of the National Academy of Sciences, Ukraine
- N-P5 The example of the risk assessment of effects of intensive industrialization during the period of the Cold

  War

  Jaroslav Volf, Ceslova Veronika, Slachtova Hana, Regional Institute of Hygiene, Ostrava, Czech Republic
- N-P6 The usage of biomarkers for exposure assessment in risk assessment application
  Ali Esat Karakaya, Gazi University, Turkey
- N-P7 <u>Problems from the influence of radioactive storage on the ecology</u>

  Azamat Tynybekov, International Science Center, Kyrgyzstan
- N-P8 <u>Elaboration of risk assessment methodology in the ecological education system of Armenia</u> Olga Juharyan, V. Asaturyan, Center for Ecological-noosphere Studies of NAS, Armenia
- N-P9 Removal of organic contaminants during treatment of groundwater using adsorbents

  Marina Valentukevicience, Juozas Jankauskas, Vilnius Gediminas Technology University, Lithuania
- N-P10 Methods of fuel spray aerodynamics control and reduction of harmful atmospheric emissions during fuel burning
  Peter Gusika, International Association of Ecological Safety, Russia; Oksana Shilova, Network
  International Interaction Group, Russia
- N-P11 The International Risk Network: enabling risk application opportunities in Russia

  Peter Gusika, International Association of Ecological Safety, Oksana Shilova, Network International

  Interaction Group, Russia, Nina Janovskaja, NUCLIDE, Vitaly Eremenko, Kurchatov Institute, Russia;

  William Andrews, Dennis Bley, James Droppo, Pacific Northwest National Laboratory, WA
- N-P12 The challenges of the Hungarian team of the Risk Assessment Network

  Tamas Madarasz, University of Miskolc, Hungary
- N-P13 <u>Wide-area information exchange network to support the International Risk Assessment Network</u>
  Loren Habegger, Argonne National Laboratory; Alvin Young, US DOE Center for Risk Excellence; Robert Johnson, Margaret MacDonell, and Gus Williams, Argonne National Laboratory, IL
- N-P14 Report on the NATO Advanced Studies Institute on risk assessment activities for Cold War facilities and environmental legacies, May 2000

  James Droppo, Dennis Bley, Pacific Northwest National Laboratory, WA; Vitaly Eremenko, Kurchatov Institute, Russia